

### **ABSTRACT**

A damascene structure includes a hard mask layer that is applied in a liquid phase to a line dielectric layer. Contemplated hard mask layers comprise a Si-N bond and are densified such that the etch resistivity of the hard mask layer is greater than the etch resistivity of the line  
5 dielectric layer and the via dielectric layer in the damascene structure. Particularly preferred hard mask layers include polyperhydrosilazane.